

REMARKS

Applicants thank the Examiner for the very thorough consideration given the present application.

Claims 1, 3, 4, 6 and 8-14 are now present in this application. Claims 1, 11 and 14 are independent. By this Amendment, claims 1, 11 and 14 are amended. No new matter is involved. Support for this amendment is found throughout the Application as originally filed including, for example, in paragraph [0025].

Reconsideration of this application is respectfully requested.

Rejection Under 35 U.S.C. § 103

Claims 1, 3, 6 and 8-14 stand rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent 6,886,371 to Arai et al. ("Arai") in view of U.S. Patent 5,493,745 to Hauch. This rejection is respectfully traversed.

During patent examination, the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). If the PTO fails to meet this burden, then the Applicants are entitled to the patent.

Applicants respectfully submit that the PTO has failed to meet this burden.

A prior art reference anticipates the subject matter of a claim when that reference discloses every feature of the claimed invention, either explicitly or inherently. *In re Schreiber*,

128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997) and Hazani v. Int'l Trade Comm'n, 126 F.3d 1473, 1477, 44 USPQ2d 1358, 1361 (Fed Cir. 1997). While, of course, it is possible that it is inherent in the operation of the prior art device that a particular element operates as theorized by the Examiner, inherency may not be established by probabilities or possibilities. In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981) and In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Because the rejection is based on 35 U.S.C. §103, what is in issue in such a rejection is "the invention as a whole", not just a few features of the claimed invention. Under 35 U.S.C. § 103, " [a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." The determination under section 103 is whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. See In re O'Farrell, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988). In determining obviousness, the Examiner must explain what the differences between the claimed invention and the prior art are and provide objective factual evidence to support a conclusion that it would be obvious to one of ordinary skill in the art to achieve the claimed invention, which includes those missing features.

In the second place, in rejecting claims under 35 U.S.C. § 103, it is incumbent on the

examiner to establish a factual basis to support the legal conclusion of obviousness. See, In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one of ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. F-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. Note, In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be suggested or taught by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1970). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

A showing of a suggestion, teaching, or motivation to combine the prior art references is an “essential evidentiary component of an obviousness holding.” C.R. Bard, Inc. v. M3 Sys. Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232(Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not “evidence.” See In re Dembiczak, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617 (Fed. Cir. 1999).

Moreover, a factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusory statements of the Examiner. See In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Applicants respectfully submit that Arai does not disclose the invention as recited in amended claim 1, which claims an apparatus that electrically charges recirculated wash water, because the Arai does not appear to disclose electrically charging recirculated wash water, although Arai does disclose initially charging tap water in Fig. 26. Arai’s Fig. 26 embodiment concerns electrolyzing only tap water (cols. 23 and 24, lines 36-48), not recirculated wash water. Applicants do not find an explicit disclosure in Arai of electrically charging recirculated wash water, as claimed. Further in this regard, Applicant refers to Fig. 26, which clearly shows a separate electrolyzed water producing apparatus 84a, that is simply not shown as receiving recirculated wash water whatsoever, nor does the portion of the specification directed to explaining Fig. 26 contain such a disclosure.

Applicants also disagree with the Office Action’s interpretation of Arai in several aspects.

Firstly, the Office Action does not provide any objective factual evidence that Arai's teaching of a supersonic resonator reads on the claimed feature of water adsorption accelerating means including electrical charging electrodes "for facilitating adsorption of water in the laundry by electrically charging the recirculated wash water before reintroduction into said tub . . ." Arai actually shows, in Fig. 3, for example, that its supersonic resonator 12 is separated from water supply pipe 16, which clearly provides water into the lower portion of the case 12, that is separated from the upper portion of the case that contains the supersonic resonator 12. Arai also discloses that the washing liquid flows down from the side position of the supersonic vibration horn 13 to its tip 13a "where the washing liquid receives intense vibration. This causes capillary waves in the washing liquid, and thereby the washing liquid is made into particles and emitted vigorously downward." (paragraph bridging cols. 22 and 23 of Arai). In other words, Arai's supersonic resonator merely atomizes the water and accelerates the atomized water downward into the clothing, but is clearly not disclosed as electrically charging the water, as claimed, nor electrically charging any recirculated wash water, which is also claimed. In this regard, all that the Office Action presents is speculation devoid of objective factual evidence, whereas a rejection cannot properly be based on speculation, but must be supported by objective factual evidence of record, as explained in the case law cited above.

Secondly, Arai is totally devoid of any teaching of recirculating wash water to be fed to the water supply pipe 16, and Aria is totally devoid of any teaching of recirculating wash water to be fed to the electrolyzed water producing apparatus shown, for example, in Fig. 26. The only recirculation disclosed by Arai is found with respect to the explanation of Fig. 28, and then it only

discloses connecting piping from aspirator 94 to the washing sink of an electric washing machine to perform washing simultaneously on the electric washing machine. However, this is only a disclosure of providing de-aerated water from the aspirator to the washing machine and does not disclose recirculating wash water to the aerator, or to any device that electrically charges the recirculated wash water.

The Office Action admits that Arai fails to disclose that water is recirculated from the washing machine's washing sink 6 to the ultrasonic pre-washing device 5.

In an attempt to remedy this shortcoming, the Office Action turns to Hauch, which is simply a washing machine that has a wash water recirculation and draining system. The Office Action concludes that it would be obvious to incorporate Hauch's recirculation system into Arai by providing a reversing pump and recirculation pipe for recirculating water back into the wash machine, and cites benefits of doing so.

Applicants respectfully submit that modifying Arai to recirculate wash water does not disclose or suggest the claimed invention where, as here, neither Arai nor Hauch disclose or suggest recirculating wash water through a device that applies an electrical discharge to recirculated wash water. Applicants respectfully submit that Hauch merely recirculates wash water and has no concept of providing an electrical discharge in the wash water whatsoever, and Arai contains no disclosure of providing an electrical discharge in recirculated wash water. Because this claimed feature is missing from both references, it appears that the only basis for arriving at the claimed invention is either unwarranted speculation, unsupported by objective factual evidence, or improper hindsight reconstruction of Applicants' claimed invention based solely on Applicants' disclosure.

Furthermore, claims 1, 11 and 14 are amended to positively recite a feature clearly not disclosed or suggested by either applied reference, i.e., water absorption acceleration means for facilitating adsorption of recirculated wash water by the wet laundry, the water of which is electrically neutral.

Accordingly, the Office Action fails to make out a *prima facie* case of obviousness of the invention recited in claims 1, 3, 6 and 8-14.

Reconsideration and withdrawal of this rejection of claims 1, 3, 6 and 8-14 are respectfully requested.

Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Arai in view of Hauch, as applied in the rejection of claim 3, and further in view of U.S. Patent 5,570,596 to Imai et al. (“Imai”). This rejection is respectfully traversed.

The Office Action admits that Arai does not disclose using a source of DC power converted from AC power and, in an attempt to remedy this deficiency, turns to Imai, which discloses supplying DC power to a control circuit of an automatic washing machine by using a step down transformer and converting AC to DC power.

Applicants respectfully submit that Arai fails to disclose or suggest the invention recited in amended claim 1, from which claim 4 depends, regardless of the source of electrical power to its electrodes, and that Imai is not applied to remedy the deficiencies of Arai, that are noted above regarding Applicants’ traversal of the rejection of claim 1.

Accordingly, even if one of ordinary skill in the art were properly motivated to modify Arai

to employ a DC power source using stepped down AC power, the modified version of Arai would neither disclose or render obvious the invention recited in claim 4, for reasons discussed above.

Furthermore, because Arai does not disclose a power source for its electrodes 89a and 89b and because Imai does not disclose that its DC power source is used to power electrolytic electrodes, the Office Action fails to present objective factual evidence of proper motivation to modify Arai to use the claimed AC to DC conversion apparatus to power Arai's electrolytic electrodes 89a and 89b. Moreover, as neither applied reference suggests converting AC to DC to power water ionizing electrodes, the motivation for modifying one of the two references to include that feature must be based on speculation and/or impermissible hindsight.

Reconsideration and withdrawal of the rejection of claim 4 are respectfully requested.

Additional Cited References

Because the remaining reference cited by the Examiner has not been utilized to reject the claims, but has merely been cited to show the state of the art, no comment need be made with respect thereto.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response

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has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Robert J. Webster, Registration No. 46,472, at (703) 205-8000, in the Washington, D.C. area.

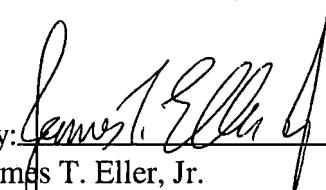
Prompt and favorable consideration of this Amendment is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Date: August 20, 2007

Respectfully submitted,

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